Name:

ml1112paper: Solve by factoring (v7)

1. Solve the equation

$$x^2 + 13x + 42 = 0$$

$$(x + 7)(x + 6) = 0$$
$$x = -6$$
$$x = -7$$

2. Solve the equation

$$x^2 + 3x - 18 = 0$$

$$(x + 6)(x - 3) = 0$$
$$x = 3$$
$$x = -6$$

3. Solve the equation

$$3x^2 + 6x - 32 \;=\; 2x^2 + 4x - 8$$

$$x^2 + 2x - 24 = 0$$
$$(x + 6)(x - 4) = 0$$
$$x = 4$$
$$x = -6$$

4. Solve the equation

$$2x^2 + 13x - 17 \;=\; x^2 + 5x - 8$$

$$x^2 + 8x - 9 = 0$$
$$(x - 1)(x + 9) = 0$$
$$x = -9$$
$$x = 1$$

5. Solve the equation

$$3x^2 + 22x - 16 = 0$$

$$(3x - 2)(x + 8) = 0$$
$$x = -8$$
$$x = \frac{2}{3}$$

6. Solve the equation

$$11x^2 + 14x - 16 = 0$$

$$(11x - 8)(x + 2) = 0$$
$$x = -2$$
$$x = \frac{8}{11}$$

7. Solve the equation

$$13x^2 + x - 13 \;=\; 8x^2 - 2x + 1$$

$$5x^2 + 3x - 14 = 0$$
$$(5x - 7)(x + 2) = 0$$
$$x = -2$$
$$x = \frac{7}{5}$$

8. Solve the equation

$$15x^2 + 41x - 44 \;=\; 4x^2 + 6x - 8$$

$$11x^2 + 35x - 36 = 0$$
$$(11x - 9)(x + 4) = 0$$
$$x = -4$$
$$x = \frac{9}{11}$$